

and heart in which was found  
a fond repose

These Eyes that were the windows  
of my prison -  
and lips thro which my prayers  
to God have risen

From these, all these, death's  
angel bids me sever.

Dear comrade body fare you  
well forever

I go to mine heritage  
and going go with all the  
joy the freed soul can know

Yet in my spirit wanderings I  
trust I may sometimes pass near  
your sacred dust



## Fourth Dimension

In the evolution of the line into the square and the square into the cube a new form results whose parts are those of the previous units.

Thus we form a square with four lines.

These lines are the units of the structure of the square. Six Squares are added to each other to form a cube.

The units of the structure of the cube are 6 Squares. It is evident therefore that if we add cubes together we obtain another form whose units are cubes.

In the Square the 4 lines and 4 points are visible. In the cube the lines and points of all the squares are visible. In the 4th dimensional figure the points, lines, squares and cubes are all visible.



Human beings and all beings living in three dimensional bodies cannot have access to any other dimensional existence or be in any way conscious of anything outside of the particular three dimension they occupy or beyond their boundaries.

If such limitation did not exist our powers would be very marvellous such as would be possible to us as we are to which add freedom from our boundaries that limit us physically.

The universe seems vast beyond all comprehension space is to us all but incomprehensible. This would not be so if we could pass our boundaries. The distance from star to star would be but a little flight and thus would disappear all concepts formed by our inhibition such as bind us now.



Inasmuch as we have lines  
and a form constructed of lines  
of 2 dimensions called a square.

and a figure constructed of planes  
or squares called a cube <sup>having 3 dimensions</sup> then we should  
have a form composed of cubes that  
that would have to be known as  
4th dimension



are there not atoms having poles  
that unite to form units of length  
these uniting to form areas and  
these uniting to form three dimensional  
forms Having obtained forms  
that are solid their next evolution  
would be expansion of that form  
This expansion of the three dimensional  
form must then be the fourth  
dimension of evolving form The  
next would be the fifth and so  
on until the ego at work has come  
to that dimension that is a measure  
of its cohering power as a form

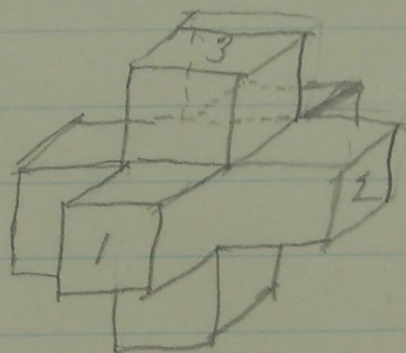


No Matter how vast we may make  
three space - even if it be extended to the  
boundaries of the universe if that were  
possible - fourth dimension would still  
bear the same relation to three space that  
three space bears to two space

The ratio of magnitude of three space is  
determined by two space & the ratio of  
four space is determined by three space



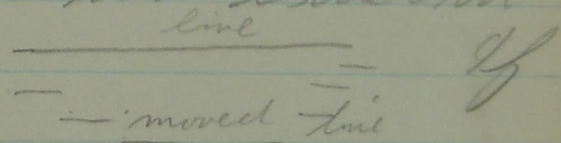
The figure produced by placing  
the cube where the square was placed  
in the mirror is the figure of 3 dimen-  
sions whilst the cube is the cube and  
not to be confounded with this new  
figure





The subdividing of a square and the movement of its subdivided parts in the direction of third dimension makes of the square a condition of three dimension as related to its smaller squares

In a like manner a line may be subdivided and its subdivisions moved to positions that exist in two dimensions



this broken line is viewed from A it will appear to be the same as before it was moved

It follows therefore that if we subdivide a cube and move its subdivided parts in the direction of fourth dimension it will appear as a cube still when viewed from fourth dimension



The Fourth dimension

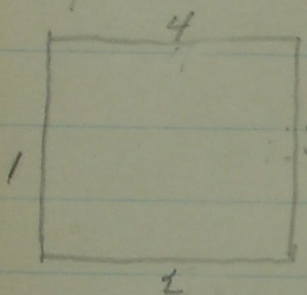
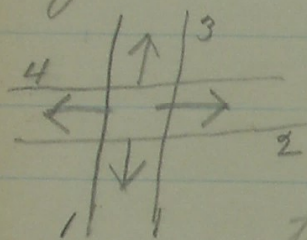
formed by the movement  
outward of the contents of a  
cube in the direction of its  
faces one half of the cube  
appearing on each face



a line has length only

A Square has two dimensions  
measured along the lines that  
form its boundaries

The square is produced  
by moving the lines 1. 2. 3. 4  
in the direction of the  
arrows outwardly from  
the central square until  
the square is produced



The square thus produced  
has no surface and is merely  
space inclosed by the lines  
1. 2. 3. 4



One dimension converges from all directions upon a point

Two dimensions converge from all directions at right angles to one dimension

Three dimensions converge from all directions at right angles to two dimensions

Four dimension converges from all directions at right angles to three dimensions



A great number of lines can converge upon a point converging from all directions To illustrate this use a ball of shellac and stick heated needles into it

A large number of squares can converge upon a line from all directions at right angles to its length or one dimension

Two cubes can converge upon the two faces of a square from two directions at right angles to its surface



All angles Squares Tetrads  
Cubes and all regular or  
symmetrical forms can be subdivided  
into units of their form exactly like  
themselves but smaller  
The sphere?




The true Mirror that will  
reflect a correct Image

This produced by placing two Mirrors  
at an angle of  $90^\circ$  This gives  
the image correctly so that the  
Right hand of the image is the same  
as the original /



## Mirrors producing 4 space

Two plane mirrors are mounted so as to form the two sides of a box  in their interior angles that are  $90^\circ$  we may produce the image of the lines forming the boundaries of a square by placing a wire rod having its ends slightly beveled the ends of the rod resting upon the faces of the mirror marked by the two points A B

This will produce an image of the wire repeated three times and will form with rod itself a perfect square

The mirrors it will be seen are entirely in three space relative to the squares they may generate

We can now construct a set of mirrors that will make a cube of our square the mirrors extending wholly in the fourth dimension relative to the cube generated by the square in the same meaning of the term as we found in the generation of a square from a line



## Law of transposition of Matter

all solid forms may be symmetrically subdivided. The reversing or turning outward of these subdivisions changes the original form to the next higher type. Planes occupy the places of the previous lines generally.

The new form will inclose twice the volume. This can only be true of three space.

Golden Spiral  $\rightarrow$  4th Dimensionalized  
Lands



## Transposition of Octahedron

The solid substance of the Octahedron may be subdivided into eight parts these sections may be turned inside out producing a cube whose inside shape is that of the Octahedron



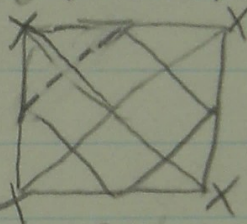
a line has two ends - Points  
a square " four edges - lines  
a cube " six sides - squares  
a cuboid " Eight faces - Cubic

a line has two points  
a square " four lines  
a cube " six squares  
tetrahedron " 8 cubes  
10 tetrahedron  
12  
 $\infty$



two points bound lines      three lines bound  
triangles four triangles bound tetrahedrons  
Tetrahedrons combine to construct  
figures in two ways      the apex turned  
in or out      20 tetrahedrons (apex in)  
form a sphere having 20 faces



The crossing and intertwining of three three dimensional figures at right angles to each other is produced by six pyramids that form a cube when put together. a section is removed from the corners of each of the pyramids so that instead of the square forming the base of the pyramid a new square is produced.  the x mark the sections to be removed. These when put together so as to form a cube will produce three three dimensional solids crossing each other at right angles.



## Intersecting or Crossing Planes

Three planes cross each other at right angles in a cube of eight cubes

Four planes cross each other in the subdivision of a cube into six pyramids the faces of the cube being the bases of the pyramids

Four planes cross each other in the four square segment of the double pyramid formed by removing a double pyramid from its two apices to their meeting place at the centre

all pyramids are inclosed by eight planes The tetrahedron is inclosed by four planes In pairs they can cross at right angles

In three intertwinced pyramids eight planes cross at its centre

Two intertwinced Tetrahedrons inclose a space bounded by eight planes

The dodecahedron is formed of six double pyramids and has six planes crossing in the directions of from line to line crossing the cube



## Three Dimensional planes

These are found in the construction of a cube with cubes. The line of cubes extending from the corners to the centre and those extending from the edges inward represent a three dimensional plane that takes the place of the planes of the cube when the two dimensional pyramids are used.

These planes can be traced in all forms constructed of cubes. The cube face extends inside this line or form.



Boundaries are the limits of  
all dimensions beyond which they  
do not extend.

What is a three dimensional boundary  
how many boundaries has fourth dimension  
in point lines planes and?

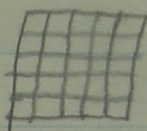


Transposition of cubes  
Occupying four positions Hidden or obscure  
Inferior Mediocre Superior



The determination of a higher dimension from a lower is based upon the higher conditions of expression found in the lower

thus A square is divided into smaller squares thus

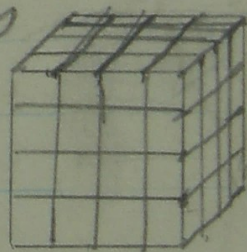


It will be seen at once

That the squares at the corners have an advantage over all the other squares since two of their sides are exposed whilst the others have only one

A cube is subdivided into smaller cubes

It is evident that the corner cubes occupy a superior position over the edge cubes and



these in turn have an advantage over the face cubes The corner cubes having three sides exposed, the edge cubes have two and the face cubes one

From the preceding it is evident that



◇

The next higher form will have the following conditions  
Its face cubes will have two sides exposed its edge cubes will have three and its corner cubes four sides exposed This is realized in the Rhombahedron

having faces formed by the edges of cubes The next higher form will have three sides of the cubes forming the faces exposed the edges will have four sides exposed and the corners five. This is a description of the cubic Octahedron.

The next higher form will have four sides of its face cubes exposed, the edges will have five sides exposed and the corners six This form is the Rhombic Dodecahedron having edges of cubes alternating with each other across its face

The next higher form will have five sides of the cubes forming its faces exposed Its edges will have six





and its corners six sides exposed

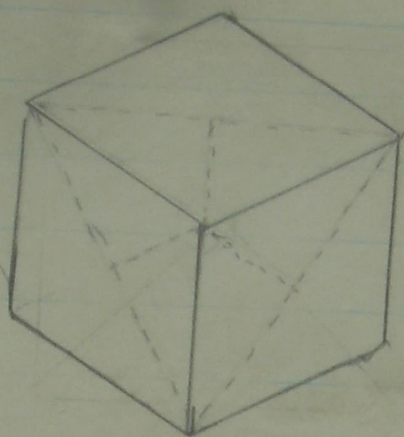
The next higher dimension The cubes forming its sides will have six sides exposed

The edges will have six sides exposed. The corners will have six sides exposed

All the hidden cubes that have been hidden within the cube have in the seventh dimension

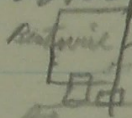
become equal with those on the outside





section of cube producing when  
turned outward three twinning  
cubes.



If a small knitting needle is fixed in a support so that it stands perpendicular to the surface of a table. a wire is bent to form the three sides of a square and fixed in a light support so that the knitting needle forms the other side of the square thus  if we look down in the direction of the length of the needle we see that the bent wire square occupies but a small portion of the region about the knitting needle, and that we could place a number of such squares around the knitting needle each of which would have the needle as their fourth side. \*



It is possible for the figures  
bounded by corners of planes  
to be the third dimension  
three dimensions should have  
3 planes crossing each other at  
right angles



The Cube has on subdivision six pyramidal sections having their apices at the centre. The Rhombic Dodecahedron has twelve pyramidal sections having same angle as cube but having the corners of the pyramid at the centre.

The Rhombic Dodecahedron has the same faces as the Octahedron except that they are cubic. By placing the right sections of the Dodecahedron on the faces of the Octahedron the latter is changed to the former.



⊕

Points Bound lines, lines bound  
planes, Planes bound cubes,  
cubes bound fourth Dimension

The adding of lines to any  
two dimensional form does not  
cause it to become a three dimen-  
sional one if added in the same  
plane we may thus make a four  
out of a three sided figure or a five  
sided but this does not cause it  
to become three dimensional

The addition of faces to a three  
dimensional figure cannot therefore  
cause it to become fourth Dimensional  
no matter how many may be added  
we must assume therefore that the  
statement that is made that the  
fourth Dimensional cube has eight  
faces is not correct since the  
boundaries of two dimension stop  
at the third dimension and the fourth  
must be bounded by cubes and  
also that it must have eight cubic



⊕

Boundaries In other words it will have eight faces formed of cubes. This figure is realized in the cubic Octahedron.

A square has four one dimensional sides, a cube has six two dimensional faces. The cubic octahedron has eight cubic faces.



## Progression of boundaries $\Phi$

A line is bounded by two points  
a square is bounded by four  
lines a cube is bounded by  
six squares. The addition  
of more lines to a square will  
not make it three dimensional  
if the added lines are in the same  
plane neither will the addition  
of more squares to a cube make  
it fourth dimensional if in the  
same three space



an infinite plane may be  
divided by two lines crossing it  
at right angles so that plane  
beings living in such a universe  
would be unconscious of those  
living on the other side of the lines  
dividing one portion of two space  
from the other (this is an assumption)



The cleaving of space by three infinit planes at right angles to each other divides space into eight three dimensional regions separated from each other by three boundaries that limit each of the three dimensions completely separating them from each other; since a three dimensional being could occupy and perceive that dimension only in which he was, the other seven three-dimensional spaces would be invisible and would lie beyond the boundaries of his world.



2 Points determine a line 3 points determine  
a plane 4 points determine a three dimension  
5 points determine four dimension



The movement of one point in one dimensional space produces a line

The movement of two lines in two dimensional space in directions that cross each other produces a square

The movement of three squares in three dimensional space in directions that cross each other produces a cube

The movement of four cubes in four dimensional space in directions that cross each other produces a cube of cubes



## Controller for Aeroplane

An instrument that would control the movements of an Aeroplane in a perfect manner is a compound Gyroscope having six heavy rotating disks mounted on separate shafts all shafts converging to one centre from the six fly wheels. Each pair of wheels will be on opposite ends of a shaft separated at its centre so as to rotate each pair in opposite directions.

Such a device under high speed of rotation could not be twisted from its position in any direction.

The aeroplane proper would be hinged to this device so as to change it to different angles for scaling circling descending.

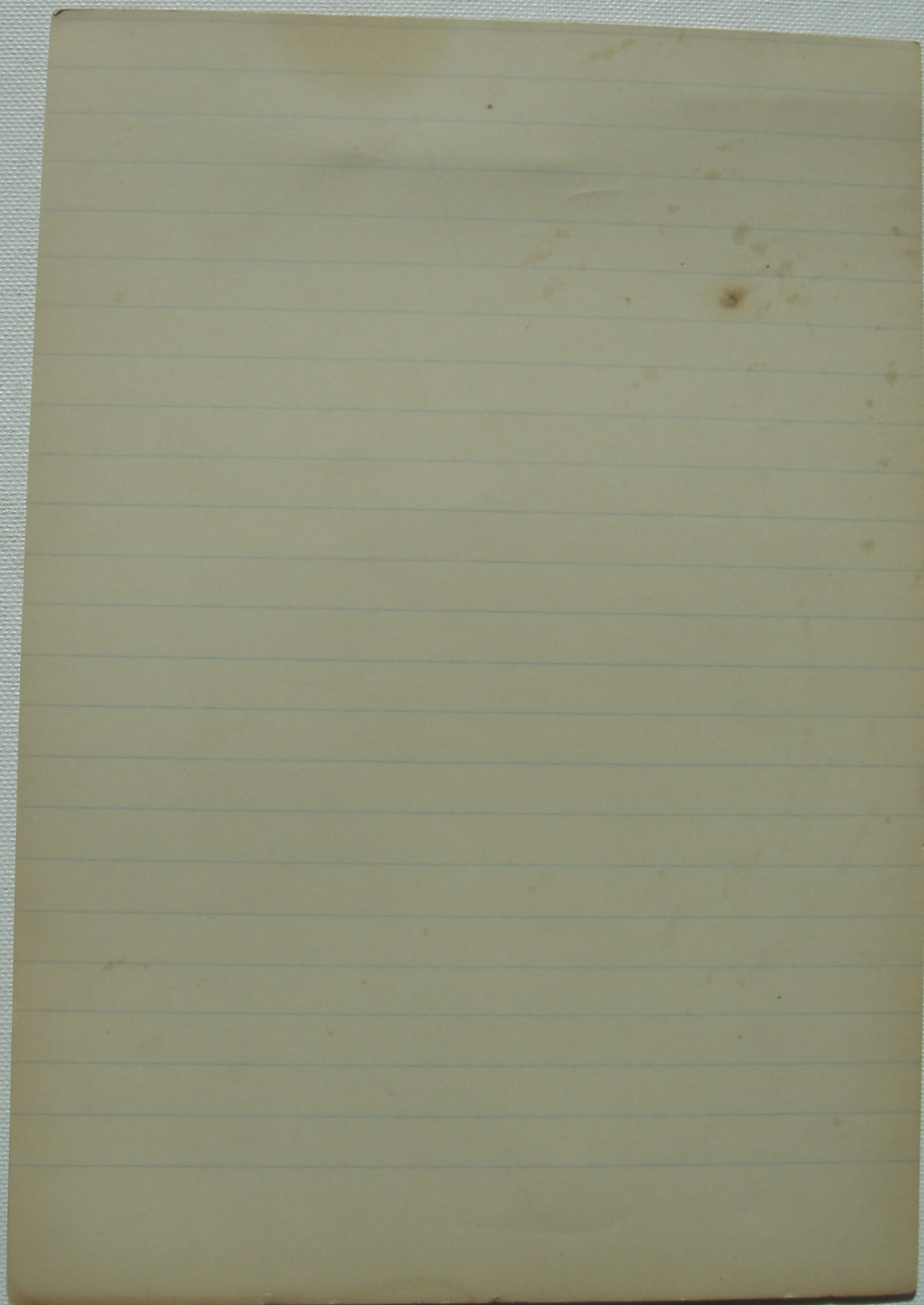
Wind blasts could not tilt or turn such a device.

W. Thomas Burton Kinraide

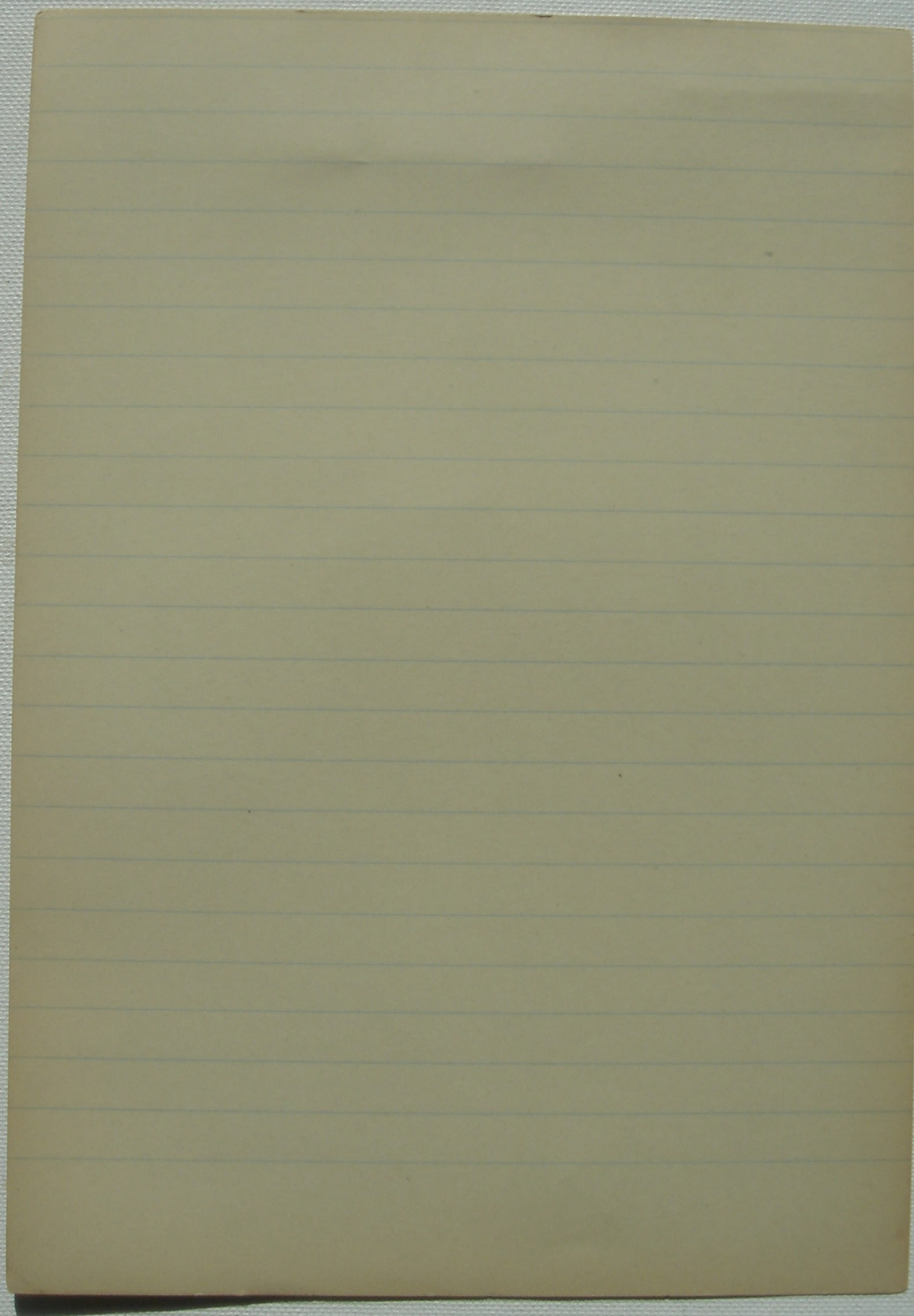
grandfather of

Claudia S. Kinraide  
13 Winthrop Rd.  
Wayland, MA 01778











So we must part forever.

And, though I long have beat  
my wings and tried to, free from  
thy narrow limits and control, forth  
into space the true home of the soul.

Yet now, yet now that mine hour  
is drawing near, I pause reluctant,  
finding you so dear.

All joy awaits me in the realms  
of God

Must you my comrade moulder neath  
the sod?

I was your prisoner yet you were my  
slave!

Your captive, yet, obedient you gave,  
to all my earliest wishes and  
commands

Whilst now to the worms I give these  
willing hands that toiled for me or  
held the book I  
read

These feet that trod whither I bid them  
tread

These arms that clasped my dear ones  
close